MOOG

Installation and Operation Instructions

Before attempting to connect or operate this product, please read these instructions completely.

VLRM58 and VLRM24

MIMO Wireless Solutions

VLRM58..... Wireless 5.8GHz MIMO access point, 120Vac input (Power supply) 24Vdc PoE

VLRM24..... Wireless 2.4GHz MIMO access point, 120Vac input (Power supply) 24Vdc PoE

VLRM58
5.8 Receiver

VLRM24
2.4 Receiver

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81-IN5468 102814

IMPORTANT SAFEGUARDS

1 Read these instructions.

2 Keep these instructions.

3 Heed all warnings

4 Follow all instructions.

5 Do not use this apparatus near water.

6 Clean only with damp cloth.

7 Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.

8 Cable Runs- All cable runs must be within permissible distance.

9 Mounting - This unit must be properly and securely mounted to a supporting structure capable of sustaining the weight of the unit.

Accordingly:

a. The installation should be made by a qualified installer.

b. The installation should be in compliance with local codes.

c. Care should be exercised to select suitable hardware to install the unit, taking into account both the composition of the mounting surface and the weight of the unit.

10 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

11 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

12 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

13 Only use attachment/ accessories specified by the manufacturer.

14 Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

15 Unplug this apparatus during lighting storms or when unused for long periods of time.

16 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled of objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Be sure to periodically examine the unit and the supporting structure to make sure that the integrity of the installation is intact. Failure to comply with the foregoing could result in the unit separating from the support structure and falling, with resultant damages or injury to anyone or anything struck by the falling unit.

UNPACKING

Unpack carefully. Electronic components can be damaged if improperly handled or dropped. If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper.

Be sure to save:

1 The shipping carton and packaging material. They are the safest material in which to make future shipments of the equipment.

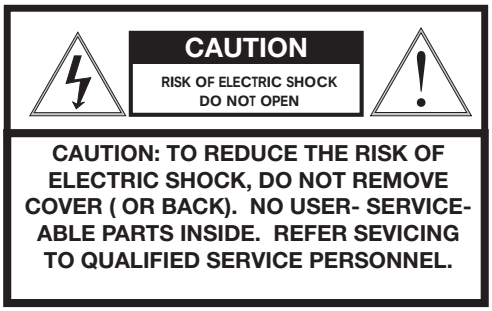
2 These Installation and Operating Instructions.

SERVICE

If technical support or service is needed, contact us at the following number:

TECHNICAL SUPPORT
AVAILABLE 24 HOURS
1 - 800 - 554 -1124

SAFETY PRECAUTIONS


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER- SERVICE-ABLE PARTS INSIDE. REFER SEVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of non-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk to persons.

Este símbolo se piensa para alertar al usuario a la presencia del “voltaje peligroso no-aislado” dentro del recinto de los productos que puede ser un riesgo de choque eléctrico.

Ce symbole est prévu pour alerter l’utilisateur à la presence “de la tension dangereuse” non-isolée dans la clôture de produits qui peut être un risque de choc électrique.

Dieses Symbol soll den Benutzer zum Vorhandensein der nicht-Isolier “Gefährdungsspannung” innerhalb der Produkteinschließung alarmieren die eine Gefahr des elektrischen Schlages sein kann.

Este símbolo é pretendido alertar o usuário à presença “di tensão perigosa non-isolada” dentro do cerco dos produtos que pode ser um risco de choque elétrico.

Questo simbolo è inteso per avvertire l’utente alla presenza “di tensione pericolosa” non-isolata all’interno della recinzione dei prodotti che può essere un rischio di scossa elettrica.

The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Este símbolo del punto del exclamation se piensa para alertar al usuario a la presencia de instrucciones importantes en la literatura que acompaña la aplicación.

Ce symbole de point d’exclamation est prévu pour alerter l’utilisateur à la presence des instructions importantes dans la littérature accompagnant l’appareil.

Dieses Ausruf Punktsymbol soll den Benutzer zum Vorhandensein de wichtigen Anweisungen in der Literatur alarmieren, die das Gerät begleitet.

Este símbolo do ponto do exclamation é pretendido alertar o usuário à presença de instruções importantes na literatura que acompanha o dispositivo.

Questo simbolo del punto del exclamaton è inteso per avvertire l’utente alla presenza delle istruzioni importanti nella letteratura che accompagna l'apparecchio.

MADE IN USA
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Product Warranty Registration

Register Your Products Online
www.moogS3.com/technical-support/product-registration

Moog values your patronage. We are solely committed to providing you with the highest quality products and superior customer service. With 3-Year and 5-Year warranties (depending on the product purchased) we stand behind every product we sell.

See full warranty details at **www.moogS3.com/technical-support/warranty-plan/**

Register your products today to receive the following benefits:

- Simple and Trouble-Free RMA process
- Product / software updates
- Special promotions
- Eliminate the need to archive purchase documents such as receipts, purchase orders, etc.

Limited Warranty for Moog Products

Moog - Decatur Operations, subsequently referred to as "Manufacturer," warrants these products to be free from defects in material or workmanship as follows:

PRODUCT CATEGORY	PARTS \ LABOR
All Enclosures and Electronics	Five (5) Years
Accessory Brackets	Five (5) Years
Controllers	Three (3) Years
Power Supplies / IR Illuminators	Three (3) Years
Poles / PolEvators™ / CamEvator	Three (3) Years
Warrior Series™ / Q-View™	Three (3) Years
SView Series™	Three (3) Years 6 months if used in auto scan / tour operation
DeputyDome™, NiteTrac™, Igloo Dome, PurgeDome™	Three (3) Years 6 months if used in auto scan / tour operation
EXO Series™ Dome and Fixed Camera Systems*	Three (3) Years 6 months if used in auto scan / tour operation
EXO Series™ GeminEye Visible and Thermal Camera Systems	One (1) Year

During the labor warranty period, to repair the Product, Purchaser will either return the defective product, freight prepaid, or deliver it to Manufacturer at Moog Decatur Operations, 2525 Park Central Boulevard, Decatur, Georgia, 30035. The Product to be repaired is to be returned in either its original carton or a similar package affording an equal degree of protection with a RMA # (Return Materials Authorization number) displayed on the outer box or packing slip. To obtain a RMA# you must contact our Technical Support Team at 800.554.1124, extension 101. Manufacturer will return the repaired product freight prepaid to Purchaser. Manufacturer is not obligated to provide Purchaser with a substitute unit during the warranty period or at any time. After the applicable warranty period, Purchaser must pay all labor and/or parts charges. The limited warranty stated in these product instructions is subject to all of the following terms and conditions.

TERMS AND CONDITIONS

1. NOTIFICATION OF CLAIMS: WARRANTY SERVICE: If Purchaser believes that the Product is defective in material or workmanship, then written notice with an explanation of the claim shall be given promptly by Purchaser to Manufacturer. All claims for warranty service must be made within the warranty period. If after investigation, Manufacturer determines the reported problem was not covered by the warranty, Purchaser shall pay Manufacturer for the cost of investigating the problem at its then prevailing per incident billable rate. No repair or replacement of any Product or part thereof shall extend the warranty period of the entire Product. The specific warranty on the repaired part only shall be in effect for a period of ninety (90) days following the repair or replacement of that part or the remaining period of the Product parts warranty, whichever is greater.

2. EXCLUSIVE REMEDY: ACCEPTANCE: Purchaser's exclusive remedy and Manufacturer's sole obligation is to supply (or pay for) all labor necessary to repair any Product found to be defective within the warranty period and to supply, at no extra charge, new or rebuilt replacements for defective parts.

3. EXCEPTIONS TO LIMITED WARRANTY: Manufacturer shall have no liability or obligation to Purchaser with respect to any Product requiring service during the warranty period which is subjected to any of the following: abuse, improper use, negligence, accident, or acts of God (i.e., hurricanes, earthquakes), modification, failure of the end-user to follow the directions outlined in the product instructions, failure of the end-user to follow the maintenance procedures recommended by the International Security Industry Organization, written in product instructions, or recommended in the service manual for the Product. Furthermore, Manufacturer shall have no liability where a schedule is specified for regular replacement or maintenance or cleaning of certain parts (based on usage) and the end-user has failed to follow such schedule; attempted repair by non-qualified personnel; operation of the Product outside of the published environmental and electrical parameters, or if such Product's original identification (trademark, serial number) markings have been defaced, altered, or removed. Manufacturer excludes from warranty coverage Products sold AS IS and/or WITH ALL FAULTS and excludes used Products which have not been sold by Manufacturer to the Purchaser. All software and accompanying documentation furnished with, or as part of the Product is furnished "AS IS" (i.e., without any warranty of any kind), except where expressly provided otherwise in any documentation or license agreement furnished with the Product. ANY COST ASSOCIATED WITH REMOVAL OF DEFECTIVE PRODUCT AND INSTALLATION OF REPLACEMENT PRODUCT IS NOT INCLUDED IN THIS WARRANTY.

4. PROOF OF PURCHASE: The Purchaser's dated bill of sale must be retained as evidence of the date of purchase and to establish warranty eligibility.

DISCLAIMER OF WARRANTY

EXCEPT FOR THE FOREGOING WARRANTIES, MANUFACTURER HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY AND/OR ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY WARRANTY WITH REGARD TO ANY CLAIM OF INFRINGEMENT THAT MAY BE PROVIDED IN SECTION 2-312(3) OF THE UNIFORM COMMERCIAL CODE AND/OR IN ANY OTHER COMPARABLE STATE STATUTE. MANUFACTURER HEREBY DISCLAIMS ANY REPRESENTATIONS OR WARRANTY THAT THE PRODUCT IS COMPATIBLE WITH ANY COMBINATION OF NON-MANUFACTURER PRODUCTS OR NON-MANUFACTURER RECOMMENDED PRODUCTS PURCHASER MAY CHOOSE TO CONNECT TO THE PRODUCT.

LIMITATION OF LIABILITY

THE LIABILITY OF Manufacturer, IF ANY, AND PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DAMAGES FOR ANY CLAIM OF ANY KIND WHATSOEVER, REGARDLESS OF THE LEGAL THEORY AND WHETHER ARISING IN TORT OR CONTRACT, SHALL NOT BE GREATER THAN THE ACTUAL PURCHASE PRICE OF THE PRODUCT WITH RESPECT TO WHICH SUCH CLAIM IS MADE. IN NO EVENT SHALL MANUFACTURER BE LIABLE TO PURCHASER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION, REPLACEMENT LABOR COSTS, REIMBURSEMENT, OR DAMAGES ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS OR FOR ANY OTHER REASON WHATSOEVER.

Electrical Specifications

English

Power Supply: 24Vdc, .5A POE Supply Included
Max Power Consumption: 6.5 Watts (2.4GHz) 8 Watts (5.8GHz)
Power Method: Passive Power over Ethernet (pairs 4,5+; 7,8 return)

An all pole main switch with a contact of at least 3mm in each pole shall be incorporated in the electrical installation of the building.

Tools Required: .150" Flathead Screwdriver 7/16 Wrench or Socket 9/16 Wrench or Socket

Español

Fuente de alimentación: 24Vdc, fuente de .5A POE incluida
Consumo de energía máximo: 6.5 vatios (2.4GHz) 8 vatios (5.8GHz)
Método de la energía: Energía pasiva sobre Ethernet
(pares 4.5+; vuelta 7.8)

Todo el interruptor principal del poste con un contacto de por lo menos 3m m en cada poste será incorporado en la instalación eléctrica del edificio.

Herramientas Requeridas: destornillador de cabeza llana del 150"7/16 llave de la llave o del zócalo 9/16 o zócalo

Français

Alimentation d'énergie: 24Vdc, approvisionnement de .5A POE inclus Puissance maximum: 6.5 watts (2.4GHz) 8 watts (5.8GHz)
Méthode de puissance: Puissance passive au-dessus d'Ethernet
(paires 4.5+ ; retour 7.8)

Un tout le commutateur principal de poteau avec un contact au moins de 3mm dans chaque poteau sera incorporé dans l'installation électrique du bâtiment.

Outils Requis : tournevis à tête plate de 150"7/16 clé de clé ou de douille 9/16 ou douille

Deutsch

Spg.Versorgungsteil: 24Vdc, .5A POE Versorgungsmaterial schloß ein Maximale Leistungsaufnahme: 6.5 Watt (2.4GHz) 8 Watt (5.8GHz) Energien-Methode: Passive Energie über Ethernet
(Paare 4.5+; Rückkehr 7.8)

Ein aller Pfostenhauptschalter mit einem Kontakt von 3mm mindestens in jedem Pfosten wird in der elektrischen Installation des Gebäudes enthalten.

Werkzeuge Erforderten: 150"Flachkopfschraubenzieher 7/16 Schlüssel-oder Einfaßung 9/16 Schlüssel oder Einfaßung

Portuguese

Fonte de alimentação: 24Vdc, fonte do ponto de entrada de .5A incluída.
Consumo de potência máximo: 6.5 watts (2.4GHz) 8 watts (5.8GHz)
Método do poder: Poder passivo sobre o Ethernet
(pares 4.5+; retorno 7.8)

Todo o interruptor principal do pólo com um contato ao menos de 3mm em cada pólo será incorporado na instalação elétrica do edifício.

As Ferramentas Requereram: chave de fenda flathead do 150"7/16 de chave da chave ou do soquete 9/16 ou soquete

Italiano

Alimentazione elettrica: 24Vdc, rifornimento di .5A POE incluso
Assorbimento di corrente di energia massimo: 6.5 watt (2.4GHz)
8 watt (5.8GHz)
Metodo di potere: Potere passivo sopra Ethernet
(accoppiamenti 4.5+; ritorno 7.8)

Tutto l'interruttore principale del palo con un contatto almeno di 3mm in ogni palo sarà compreso nell'installazione elettrica della costruzione.

Attrezzi Richiesti: cacciavite a testa piatta del 150"7/16 di chiave dallo zoccolo o dalla chiave 9/16 o zoccolo

Contents of Box

GENERAL INSTRUCTIONS (Mechanical):

Tools Required (minimum)

.150" Flat head Screwdriver
7/16" Wrench or Socket
9/16" Wrench or Socket

Wireless Cabling Best Practice

CAUTION:
MUST USE SHIELDED CABLE / CONNECTOR

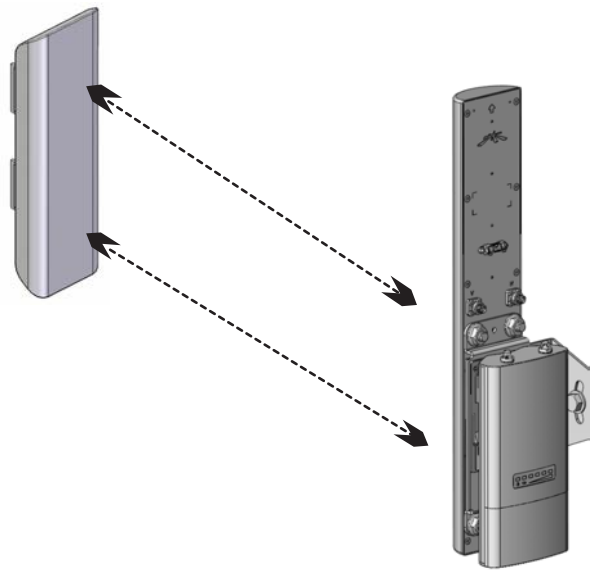
Product Description

The VLRM24/58 is a Wi-Fi Station with WPA and WPA2 supplicant support. It is specially designed to act as a Transparent Wireless Bridge that associates to a service provider and authenticates using 802.1x, if required, on start up.

Product Features

- 10/100 Ethernet interface with auto-crossover detection
- WPA/WPA2- Personal and WPA/WPA2 - Enterprise support
- High Power outdoor access point and adjustable transmit power
- Specially designed for transparent Internet access

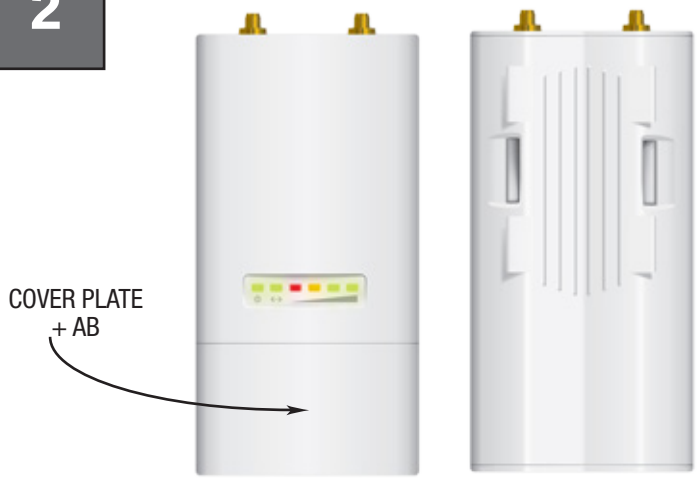
1



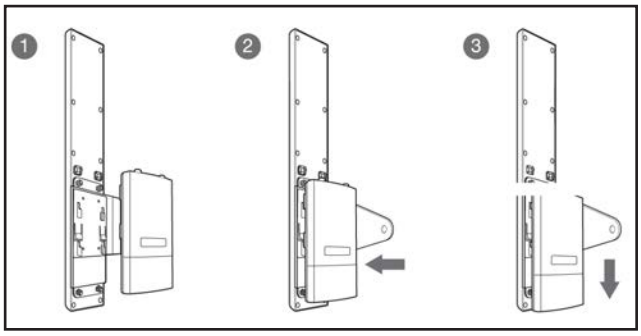
When using directional antennae, the AP unit and client should be aimed toward each other.

- Al usar las antenas direccionales, la unidad del AP y el cliente se deben estar dirigido hacia uno a.
- À l'aide des antennes directrices, l'unité d'AP et le client devraient être visés vers l'un l'autre.
- Wenn man Richtantennen verwendet, sollten die AP-Maßeinheit und der Klient in Richtung zu einander gezielt werden.
- Ao usar antenas direcionais, a unidade do AP e o cliente devem ser apontados para se.
- Nel per mezzo delle antenne direzionali, l'unità di AP ed il cliente dovrebbero essere mirati verso a vicenda.

2



Insert radio in back of sectional antenna and connect the 2 antenna cables from the radio to antenna. Remove the bottom cover plate to connect network cable.



1. Connect the radio to the PoE port of the power adapter.
2. Connect the end of the included power adapter to a power socket.
3. Power on the power adaptor.

2.1 LED Description

LED	Color	Status	Description
PWR	Green	On	Power is on
		Off	Power is off
LAN	Green	On	Ethernet is connected
		Off	Ethernet is not connected
Wi-Fi	Green	On	Associated with an access point. The number of LED lights from "MIN" to" MAX" indicates the received signal strength level.
		Off	Not associated with any access point.

3

Complete the following steps to configure a wireless link between a VLRM24/58 with a PB24M24/58:

- Connect to the VLRM24/58 by opening a web browser and connecting to http://192.168.1.20.

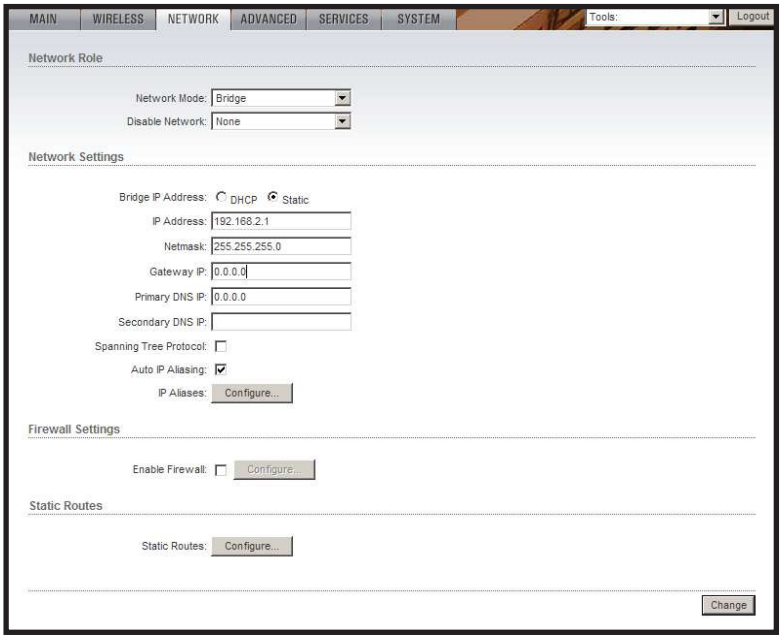
Login to the device using **UNBT** for the username and **UNBT** for the password.

Click on the **Network** tab on the configuration page.

Note that a static IP address of **192.168.1.20** has been assigned to the unit as default.

The default IP address, subnet mask, and gateway can all be changed from this screen if needed.

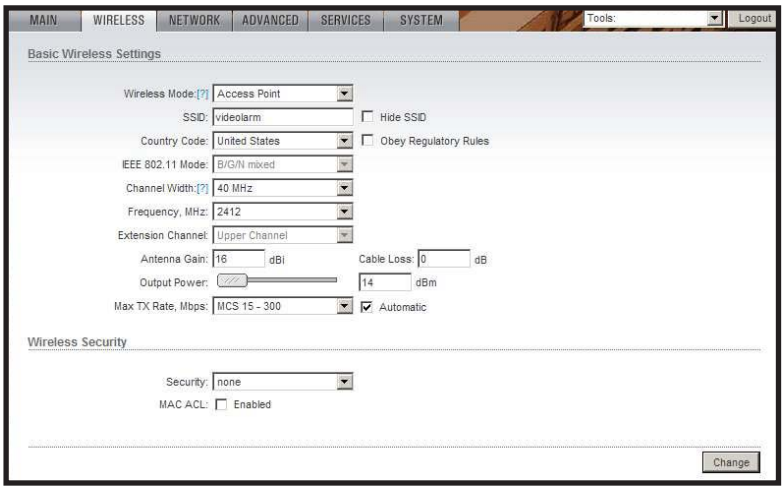
Click in the corresponding box and enter in the required IP setting, then click the **Change** button in the bottom right hand corner of the window.



NOTE - Connection to the VLRM24/58 **will be lost** if the IP address is changed at this time. A connection will need to be made to the new IP address that has just been assigned in order to view the configuration page again.

3.1 Wireless Configuration

Click on the Wireless tab on the configuration page.



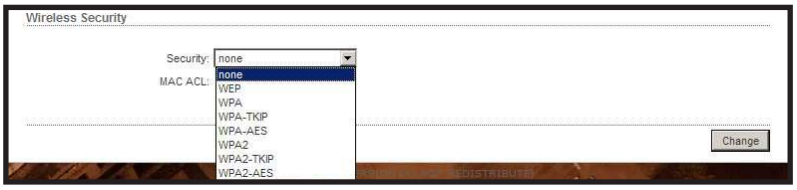
Note that the unit is set to a Wireless Mode of **Access Point** and the default SSID for the wireless network is set to **UBNT**.

The default SSID can be changed by clicking in the **SSID box**, typing in the new SSID that is required, and clicking on the **Change** button at the bottom right hand corner of the window.

3.2 Wireless Security Options

Encryption for the wireless link is **also** set from this page.

Select the Encryption method that is desired and enter the appropriate encryption key. Note that this same key will need to be entered in **all** devices connecting to the wireless network.



Click the **Change** button in the bottom right hand corner to apply the security settings.

3.3

Complete the following steps to connect two VLRM58 units on the same wireless network using WDS.

- Connect to the VLRM24/58 by opening a web browser and connecting to http://192.168.1.20.

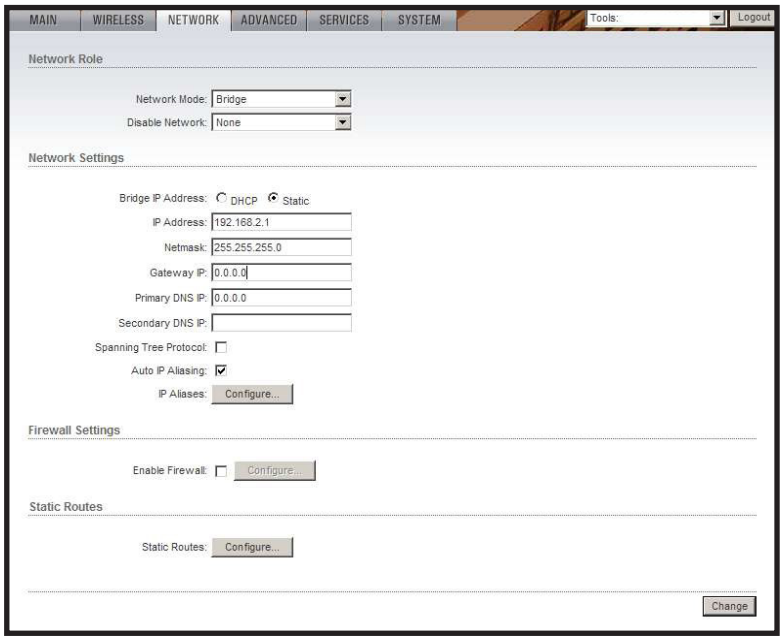
Login to the device using **UBNT** for the username and **UNBT** for the password.

Click on the **Network** tab on the configuration page.

Note that a static IP address of **192.168.1.20** has been assigned to the unit be default.

The default IP address, subnet mask, and gateway can all be changed from this screen if needed.

Click in the corresponding box and enter in the **required** IP setting, then click the **Change** button in the bottom right hand corner of the window.

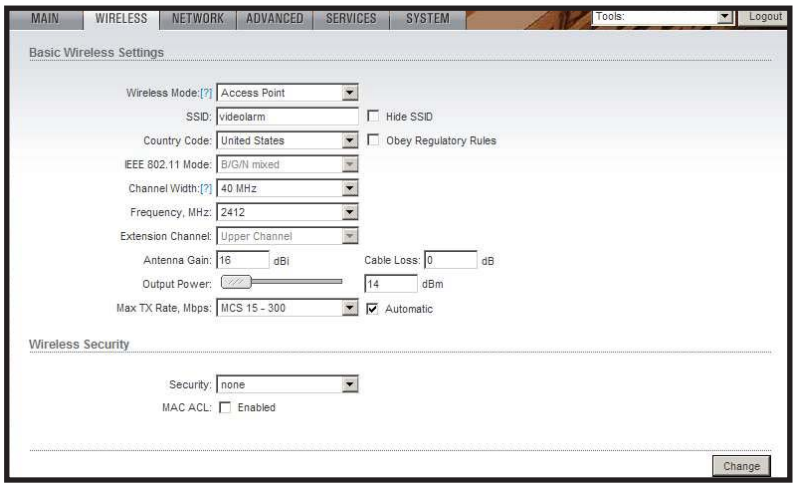


NOTE - Connection to the VLRM24/58 **will be lost** if the IP address is changed at this time. A connection will need to be made to the new IP address that has just been assigned in order to view the configuration page again.

3.4 Wireless Configuration

Click on the Wireless tab on the configuration page.

Note that the unit is set to a **Wireless Mode** of Access Point and the **default** SSID for the wireless network is set to **UBNT**.



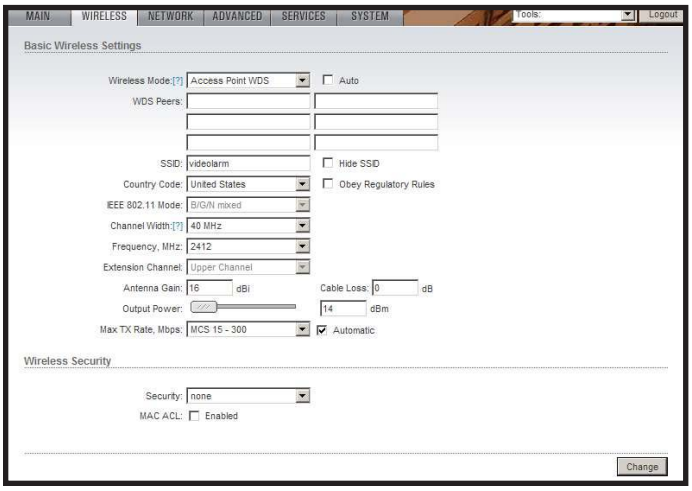
3.5 Changing Wireless Mode

Change the Wireless Mode to Access Point WDS.

Place a check mark in the **Auto box** beside the selection.

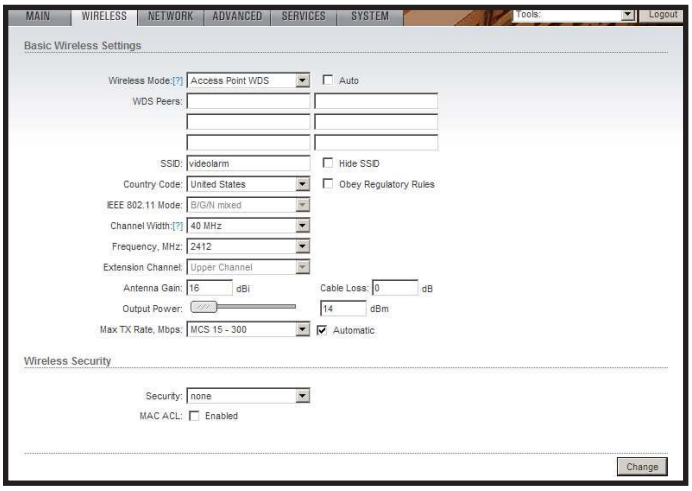
Connect to the **second** device and complete the proceeding steps.

In **most** cases the units will connect to one another using the Auto mode. **However** this might not always be the case.

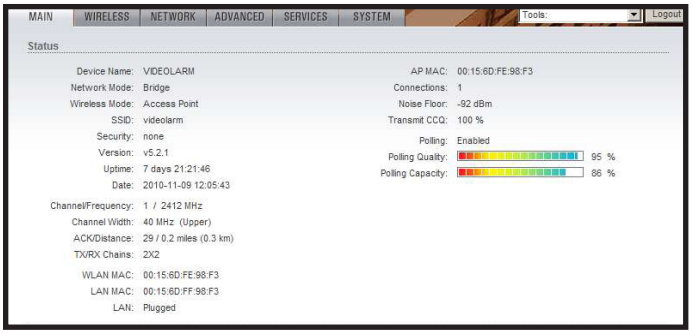


If the units do not connect automatically then the **MAC addresses** for the devices will need to be entered into the **WDS Peers** section.

The MAC address of the unit on the **OPPOSITE** end of the connection **must be** entered in the WDS Peers box.



The MAC address for each unit can be located on the **Main** tab where it shows the units status. There MAC address can be found in **three separate** locations on that screen under **LAN MAC**, **WAN MAC**, and **AP MAC**. All three MAC address will be **the same**.



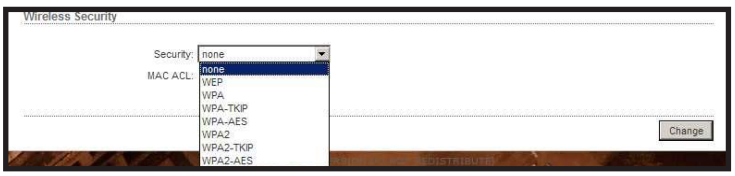
Log into **each** unit, take note of the listed MAC address, and enter it into the **WDS Peers** box on the **other** unit.

The **default** SSID can be changed by clicking in the **SSID** box, typing in the **new** SSID that is required, and clicking on the **Change** button at the bottom right hand corner of the window.

Encryption for the wireless link is **also** set from this page.

Select the Encryption method that is desired and enter the appropriate encryption key. Note that this **same** key will need to be entered in **all** devices connecting to the wireless network.

Click the **Change** button in the bottom right hand corner to apply the security settings.



Wireless IP & Mac Address Form

For your convenience and future reference, the following form has been included to record your wireless surveillance systems IP and Mac addresses. Once completed, remove the form from instruction packet and place in a secure place or inside the Moog wireless product. The information recorded will prove beneficial when servicing or expanding your wireless system.

Camera #	IP Address	Mac Address	Location	Password	Notes
1	**192.168.1.101**	**00-65-29-12-12**	**Parking1**	**Root**	**Megapixl Cam**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Wireless #	IP Address	Mac Address	Location	BSSID	Mode
1	**192.168.1.1**	**00-08-d3-12-d2**	**Parking1**	**Videolarm**	**Client ch 11**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					